# Package 'ImCluster'

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**Type** Package

**Title** Efficiency of Cluster Sampling for Crop Surveys

**Version** 0.1.0

**Author** M. Iqbal Jeelani [aut, cre],
Fehim Jeelani [aut],
Shakeel Ahmad Mir [aut],
Showkat Maqbool [aut],
Syed Naseem Geelani [aut],
Mushtaq Ahmad Lone [aut],
Md Yeasin [aut]

**Maintainer** M. Iqbal Jeelani <jeelani.miqbal@gmail.com>

**Description** Cluster sampling is a valuable approach when constructing a comprehensive list of individual units is challenging. It provides operational and cost advantages. This package is designed to test the efficiency of cluster sampling in terms cluster variance and design effect in context to crop surveys. This package has been developed using the algorithm of Iqbal et al. (2018) <doi:10.19080/BBOAJ.2018.05.555673>.

**License** GPL-3

**Encoding** UTF-8

**Imports** stats, dplyr

**RoxygenNote** 7.2.1

**Depends** R (>= 2.10)

**NeedsCompilation** no

**Repository** CRAN

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## R topics documented:

ImCluster *Efficiency of Cluster Sampling for Crop Surveys*

## Description

Efficiency of Cluster Sampling for Crop Surveys

## Usage

```
ImCluster(x, N = NULL)
```

## Arguments

| | |
|---|---|
| x | Datasets |
| N | Number of clusters |

## Value

- results: Results

## References


- Iqbal, J. M., Faizan, D and Mansha, G. (2018) . A Review on the Recent Development on the Cluster Sampling. Biostatistics and Biometrics. 5(5): 555673. DOI: 10.19080/BBOAJ.2018.05.555673


## Examples

```
N_clusters <- 105
orchards_per_cluster <- 4
data <- matrix(rnorm(N_clusters * orchards_per_cluster), nrow = orchards_per_cluster, byrow = TRUE)
colnames(data) <- paste0("Cluster_", 1:N_clusters)
demo_data <- data.frame(data)
result_imcluster <- ImCluster(demo_data, N_clusters)
```

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